WHAT IS CLAIMED IS:

1. An optical signal receiving system in which a receiving signal light which is transmitted through a single mode fiber having a zero-velocity-dispersion wavelength and has a wavelength different from the zero-dispersion wavelength, is received while performing dispersion compensation on the signal light, said system comprising:

optical receiving means; and

automatic optical level adjustment means for automatically adjusting always to a predetermined level the level of optical signal to be received by said optical receiving means when the amount of dispersion compensation on the signal light is newly set.

2. A system according to claim 1, wherein said optical signal is a wavelength-multiplexed optical signal; a plurality of said light receiving means is provided; and said automatic optical level adjustment means is provided in combination with each of the plurality of said light receiving means.

3. A system according to claim 1, wherein said predetermined level is of an optimum light receiving level of said light receiving means.

4. An automatic optical level adjuster for

automatically adjusting always to a predetermined level the level of a signal to be received by light receiving means, said adjuster comprising:

a variable optical attenuator for changing the amount of attenuation of light on the basis of first control information;

a variable optical amplifier for variably producing an optical output according to second control information;

optical switch means for switching on the basis of third information between an output optical path for output of input light by transmission through said variable optical attenuator and an output optical path for output of input light by transmission through said variable optical amplifier; and

control means for controlling the level of light output from each of said output optical paths to a preset level by outputting the third control information from comparison information obtained by comparing the level of the input light with a preset level, and the first or second control information from comparison information obtained by comparing the level of light output from said output optical path with a preset level.

5. An adjuster according to claim 4, wherein the level preset with respect to the input light and the level preset with respect to the light are stored in said control means.

6. An adjuster according to claim 4, wherein the level preset with respect to the input light and the level preset with respect to the light are set from the outside of said adjuster.

7. An adjuster according to claim 4, wherein said optical switch means comprises:

a one-input two-output optical switch for selectively inputting the input light to said variable optical attenuator or said variable optical amplifier; and

an optical coupler for combining the output of said variable optical attenuator and the output of said variable optical amplifier into one output.

8. An adjuster according to claim 4, wherein said optical switch means comprises:

a one-input two-output optical switch for selectively inputting the input light to said variable optical attenuator or said variable optical amplifier; and

a two-output one-input optical switch for selectively establishing a connection for obtaining one output from the output of said variable optical attenuator and the output of said variable optical amplifier.

9. An adjuster according to claim 4, wherein said optical switch means comprises:

a one-input two-output optical branching device for

simultaneously inputting the input light to said variable optical attenuator and to said variable optical amplifier; and

a two-output one-input optical switch for selectively establishing a connection for obtaining one output from the output of said variable optical attenuator and the output of said variable optical amplifier.

10. A system according to claim 1, wherein said automatic optical level adjustment means comprises:

a variable optical attenuator for changing the amount of attenuation of light on the basis of first control information;

a variable optical amplifier for variably producing an optical output according to second control information;

optical switch means for switching on the basis of third information between an output optical path for output of input light by transmission through said variable optical attenuator and an output optical path for output of input light by transmission through said variable optical amplifier; and

control means for controlling the level of light output from each of said output optical paths to a preset level by outputting the third control information from comparison information obtained by comparing the level of the input light with a preset level, and the first or second control information from comparison information obtained by comparing the level of light output from said

output optical path with a preset level.

11. A system according to claim 2, further comprising dispersion-compensating light receiving means forming a plurality of stages, said dispersion-compensating light receiving means comprising:

dispersion compensation means for performing dispersion compensation on the wavelength-multiplexed input signal light;

said automatic optical level adjustment means through which output light from said dispersion compensation means is transmitted;

wavelength demultiplexing means for separating output light from said automatic optical level adjustment means into first light which is signal light of a particular wavelength and second light left after removal of the first light; and

said light receiving means for receiving the first light,

wherein said dispersion-compensating light receiving means in the plurality of stages are connected in cascade form such that the second light in one of the stages is supplied as the input signal light to said dispersion compensation means in the following stage.

12. A system according to claim 11, wherein said wavelength demultiplexing means comprises a fiber grating for reflecting the first light, and an optical circulator.

13. A system according to claim 12, wherein said optical circulator has three terminals.

14. A system according to claim 2, further comprising dispersion-compensating light receiving means forming a plurality of stages, said dispersion-compensating light receiving means comprising:

dispersion compensation means for performing dispersion compensation on the wavelength-multiplexed input signal light;

wavelength demultiplexing means for separating output light from said dispersion compensation means into first light which is signal light of a particular wavelength and second light left after removal of the first light;

said automatic optical level adjustment means through which the first light is transmitted; and

said light receiving means for receiving the light transmitted through said automatic optical level adjustment means,

wherein said dispersion-compensating light receiving means in the plurality of stages are connected in cascade form such that the second light in one of the stages is supplied as the input signal light to said dispersion compensation means in the following stage.

15. A system according to claim 14, wherein said wavelength demultiplexing means comprises a fiber grating

for reflecting the first light, and an optical circulator.

16. A system according to claim 15, wherein said optical circulator has three terminals.

17. A system according to claim 2, further comprising:

wavelength demultiplexing means for obtaining parallel wavelength demultiplexing outputs from a wavelength-multiplexed input signal;

a plurality of dispersion compensation means for performing said dispersion compensation on the output light from said wavelength demultiplexing means;

a plurality of said automatic optical level adjustment means through each of which output light from the corresponding one of said dispersion compensation means is transmitted; and

a plurality of said light receiving means each for receiving output light from the corresponding one of said automatic optical level adjustment means.

18. A system according to claim 17, wherein said wavelength demultiplexing means comprises an arrayed waveguide Bragg diffraction grating type of wavelength demultiplexing device (AWG).

19. A system according to claim 17, wherein said wavelength demultiplexing means comprises a wavelength

demultiplexing device having a plurality of stages formed by optical filters using a dielectric multilayer film.

20. A system according to claim 17, wherein said wavelength demultiplexing means comprises a device having a plurality of stages each formed of a combination of a fiber grating and an optical circulator.

21. A system according to claim 20, wherein said optical circulator has three terminals.